## WE CLAIM:

1. A saponified poly(vinyl acetate)-based
photosensitive resin having a structural unit represented by
formula (1):

$$\begin{bmatrix} O & H_2 & H_2 \\ H_2C & C & C & C \\ R_1 & OH \end{bmatrix} X Y - CH CH_2$$

$$CH_2 & C & CH_2 \\ CH_2 & CH_2 CH_2 & C$$

(wherein  $R_1$  represents H or Me;  $R_2$  represents a linear or branched C2-C10 alkylene group; n is an integer of 1 to 3; X represents

m is an integer of 0 to 6; and Y represents an aromatic ring or a single bond).

- 2. A photosensitive resin composition comprising a photosensitive resin according to claim 1.
- 3. A photosensitive resin composition according to claim 2, which further comprises at least one photopolymerization initiator.
- 4. A photosensitive resin composition according to claim 2 or 3, which further comprises water.
- 5. A method for forming a hydrogel comprising subjecting a photosensitive resin composition as recited in any of claims 2 to 4 to photopolymerization.

## 6. A compound represented by formula (2):

(wherein  $R_1$  represents H or Me;  $R_2$  represents a linear or branched C2-C10 alkylene group; X represents

m is an integer of 0 to 6; and Y represents an aromatic ring or a single bond).

## 7. A compound represented by formula (3):

(wherein  $R_1$  represents H or Me;  $R_2$  represents a linear or branched C2-C10 alkylene group; X represents

m is an integer of 0 to 6; Y represents an aromatic ring or a single bond; and each of  $R_3$  and  $R_4$  represents a C1-C3 alkyl group).